

# DTS200PI DTS200PIX

## Duplex® Weather-Resistant Loudspeaker Systems

- High-output capability
- Excellent directivity control
- Lightweight
- 12-inch Duplex® engine
- 90° x 90° Vari Intense® CD horn
- Parallel Neutrik Speakon® connectors
- Full-face, foam-backed grille
- Available with 100-watt transformer option (DTS200PIX)

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### Description

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The Altec Lansing DTS200PI is a two-way, weather-resistant factory-assembled, vented-bass, Duplex® system. This compact system features high sensitivity, high-output capability and point-source alignment, together with excellent directivity control down to 1,000 Hz. The coverage at 1,000 Hz is 110° horizontal by 100° vertical, and the system's nominal coverage is 90° horizontal by 90° vertical. The bass-reflex porting extends the low-frequency response to below 80 Hz or lower if multiple units are used. The DTS200PI consists of a 305-mm (12.0-inch) high-power, low-frequency driver with a coaxially mounted 25.4-mm (1-inch) compression driver utilizing a 90° x 90° constant-directivity horn. Electrical connection to the driver is made by a parallel, 4-pin Neutrik Speakon® connector<sup>7</sup>. The system is provided with a 1,500-Hz passive crossover featuring tweeter protection. The enclosure is injection molded from white high-impact polypropylene and lined with sound-absorbing polyester fill. Threaded 8-mm insert mounting points are provided to conveniently attach the Altec Lansing Mb100, Mb200, Mb200W, Mb300W or Mb300 suspension kits<sup>6</sup>. The system may then be hung as a single unit or as part of a

cluster. The finish of the enclosure is black textured. The grille is full-face, foam-backed, black powder-coated metal and is fastened to the front of the enclosure with screws.

A 100-watt transformer version (DTS200PIX) is also available. The DTS200PIX consists of the same components as the DTS200PI with the addition of a 100-watts transformer installed internally.

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### Architects' And Engineers' Specifications

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The loudspeaker system shall be of the vented-bass type, consisting of one, 305-mm (12.0-inch) high-power, Duplex® loudspeaker with a coaxially mounted 25.4-mm (1-inch) compression driver loaded with a Vari-Intense® 90° x 90° constant-directivity horn. The loudspeaker system shall meet the following performance criteria. Power handling shall be 200 watts of pink noise with a 6-dB crest factor, band-limited from 80 Hz to 20 kHz. Frequency response shall be smooth and uniformly usable from 80 Hz to 20 kHz. Pressure sensitivity shall be 100 dB SPL when measured at one meter on axis with one watt of band-limited pink noise from 80 Hz to 20 kHz. The enclosure shall be constructed of black, high-impact polypropylene and shall be heavily braced and lined with sound-absorbing polyester fill.

The finish of the enclosure shall be textured, and a full-face, foam-backed, removable black grille shall be provided. The dimensions of the enclosure shall be 587 mm (23.1 in.) high by 429 mm (16.9 in.) wide by 312 mm (12.3 in.) deep. The loudspeaker system shall be: 17.3 kg (38 lb) (nontransformer) and 21.3 kg (47 lb) (transformer).

The loudspeaker systems shall be the Altec Lansing DTS200PI (nontransformer) and DTS200PIX (transformer).

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### Uniform Limited Warranty Statement

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Altec Lansing products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid.

**Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) mal-

# Altec Lansing DTS200PI Duplex™ Weather-Resistant Loudspeaker Systems

function resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than EVI Audio Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, pre-paid, to EVI Audio Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from EVI Audio Service at 10500 W. Reno Avenue, Oklahoma, OK 73127 (800/845-8727 or FAX 405/577-3274).

**Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Altec Lansing shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Altec Lansing Speakers and Speaker Systems** are guaranteed against malfunction due to defects in materials or workmanship for a period of five (5) years from the date of original purchase. The Limited Warranty does not apply to burned voice coils or malfunctions

such as cone and/or coil damage resulting from improperly designed enclosures. Altec Lansing active electronics associated with the speaker systems are guaranteed for three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

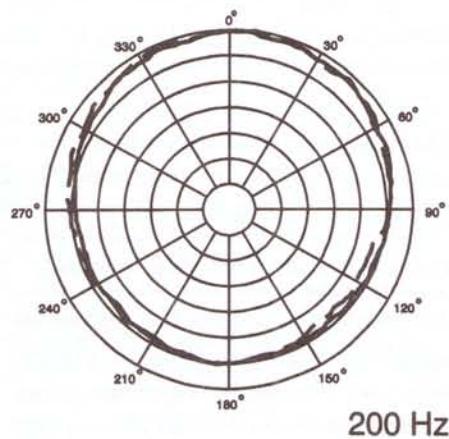
**Altec Lansing Accessories** are guaranteed against malfunction due to defects in materials or workmanship for a period of one (1) year from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

For technical assistance, contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

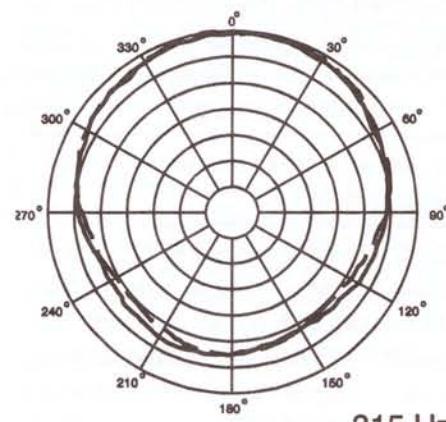
Specifications subject to change without notice.

Figure 1—DTS200PI Polar Response  
(one-third-octave bands of pink noise)

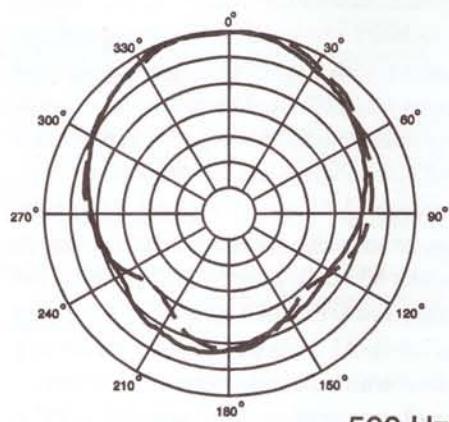
— Horizontal\*  
- - - Vertical\*  
6 dB per division



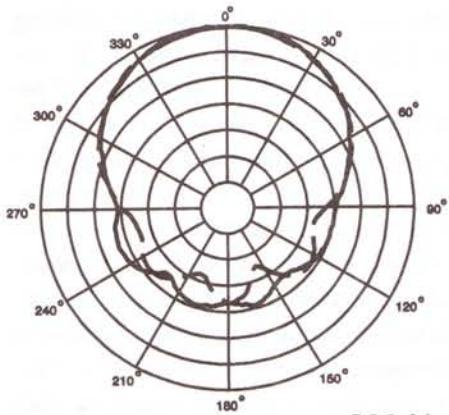
200 Hz



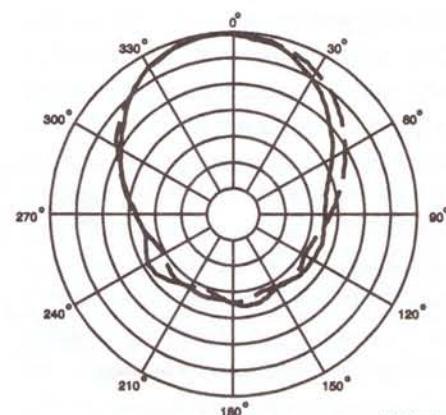
315 Hz



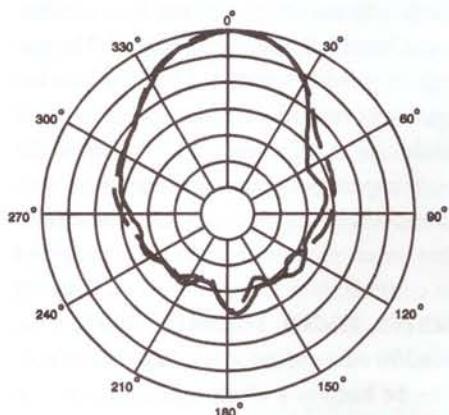
500 Hz



800 Hz



1 kHz

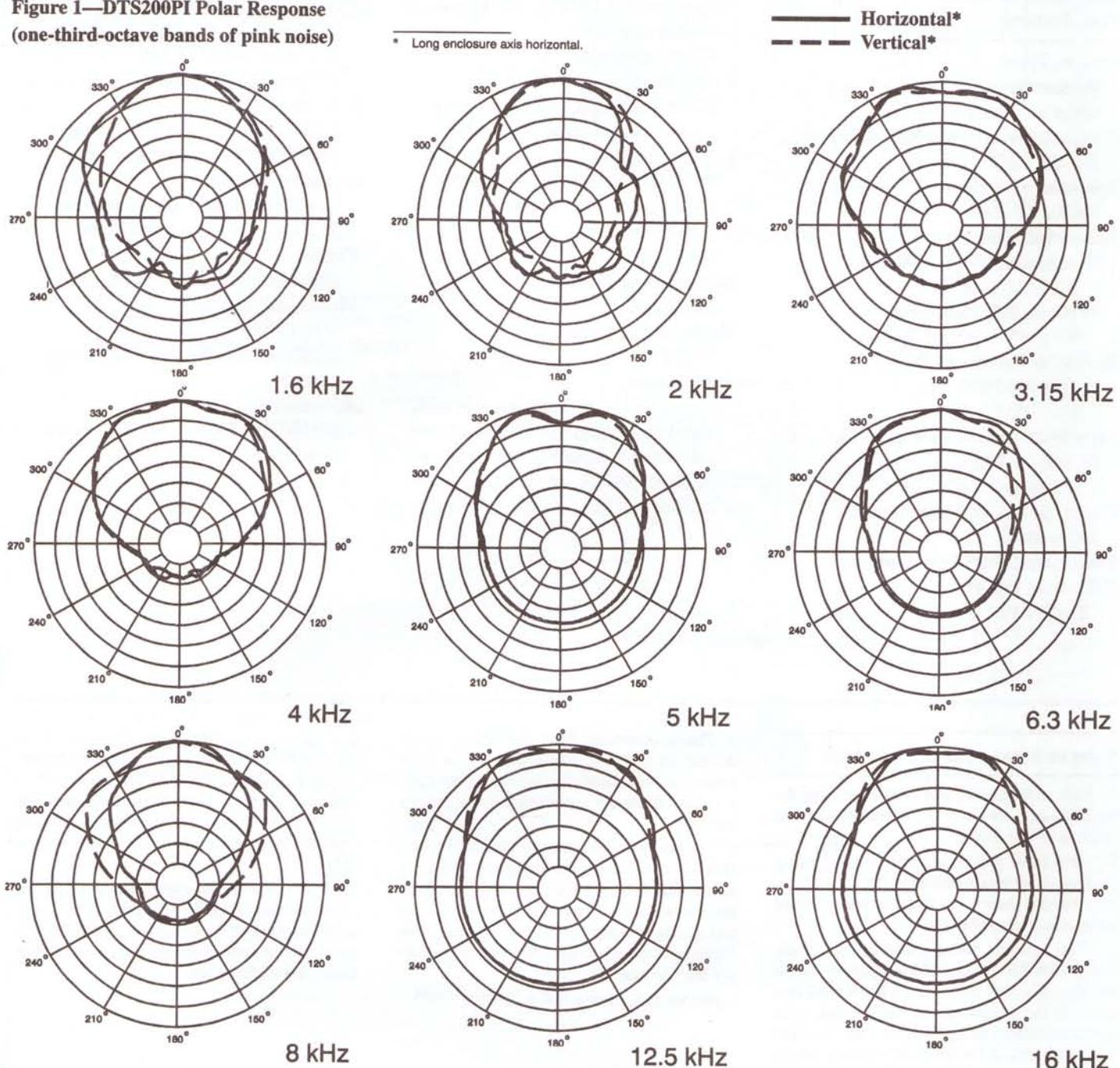


1.25 kHz

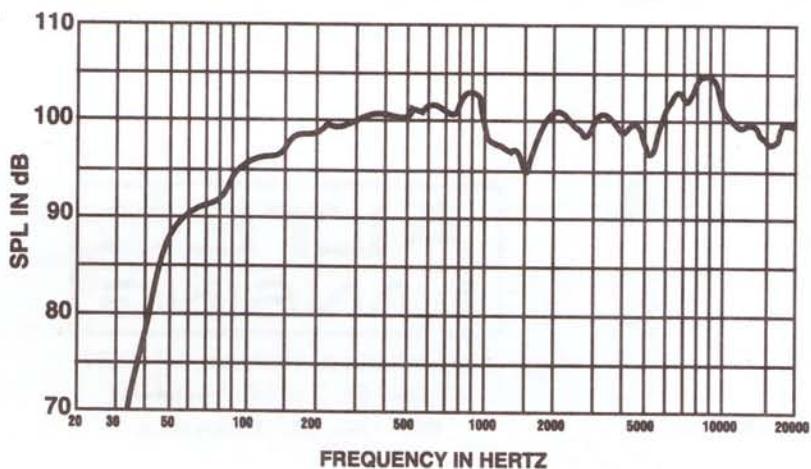
\* Long enclosure axis horizontal.

# Altec Lansing DTS200PI Duplex<sup>®</sup> Weather-Resistant Loudspeaker Systems

**Figure 1—DTS200PI Polar Response  
(one-third-octave bands of pink noise)**



**Figure 2—DTS200PI Frequency Response** (on axis, 1 watt/1 meter,  
anechoic environment)



# Altec Lansing DTS200PI Duplex<sup>™</sup> Weather-Resistant Loudspeaker Systems

Figure 3—DTS200PI Impedance Curve

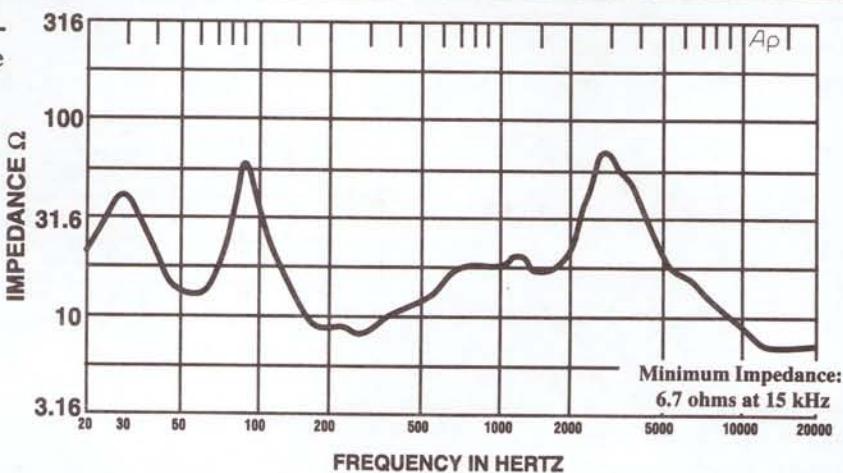


Figure 4—DTS200PI Harmonic Distortion  
(1% rated input power (2 W))

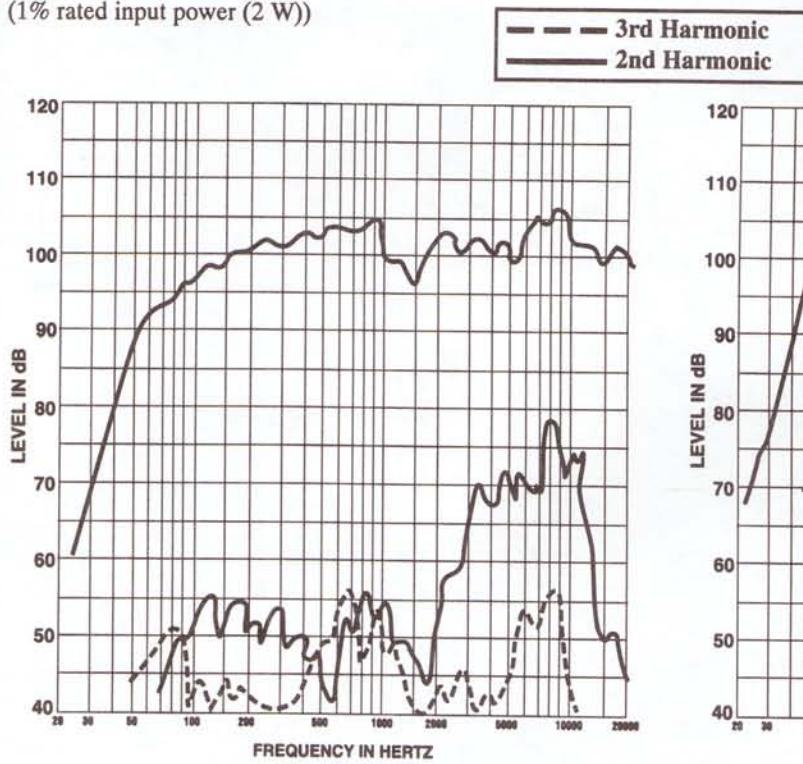


Figure 5—DTS200PI Harmonic Distortion  
(10% rated input power (20 W))

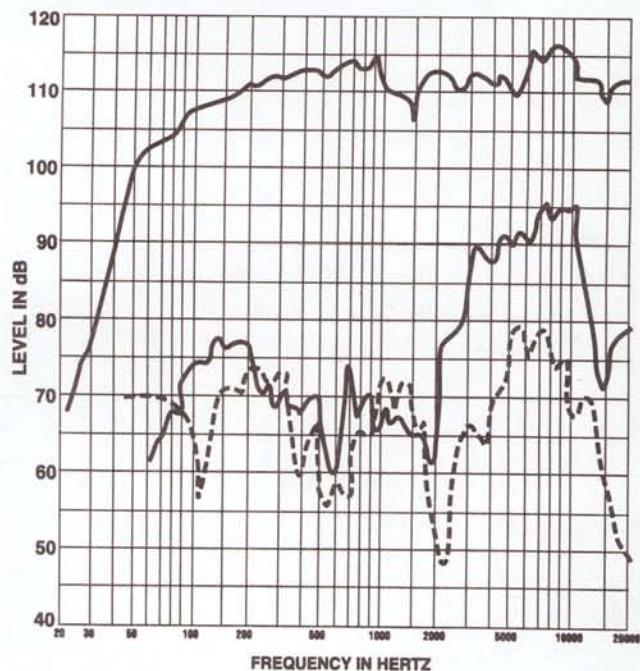
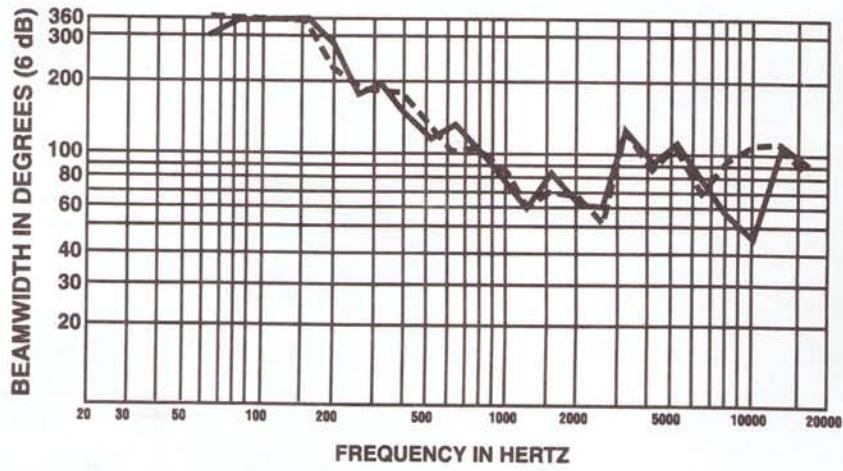


Figure 6—DTS200PI Beamwidth

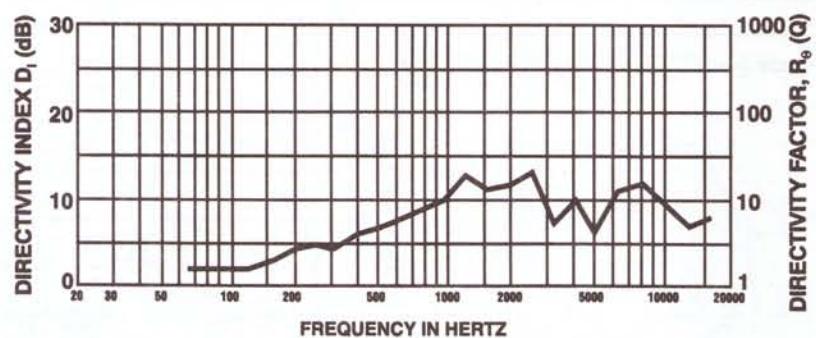


\* Long enclosure axis horizontal.

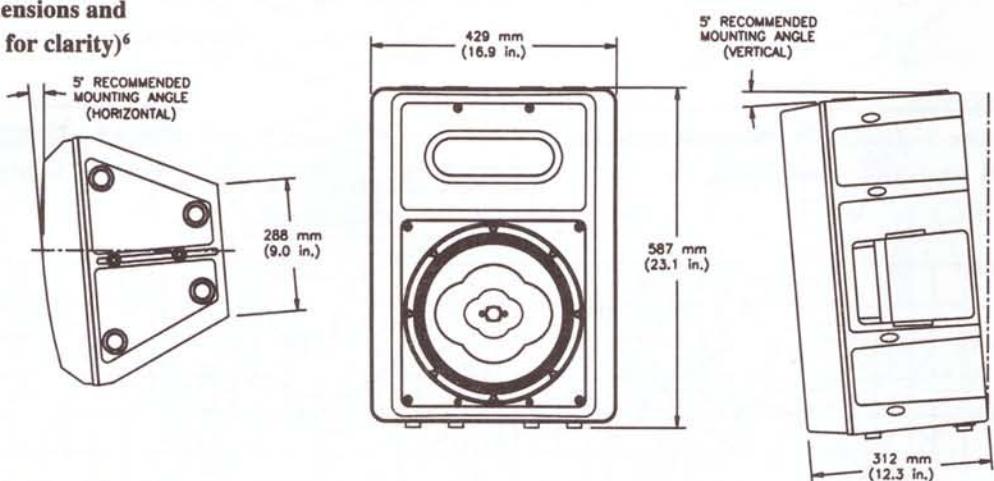
# Altec Lansing DTS200PI/DTS200PIX Duplex<sup>®</sup> Weather-Resistant Loudspeakers Systems

# Altec Lansing DTS200PI Duplex™ Weather-Resistant Loudspeaker Systems

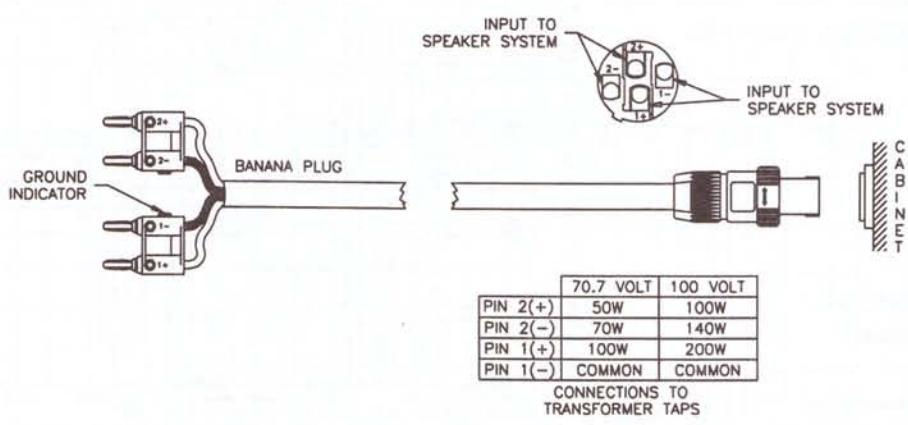
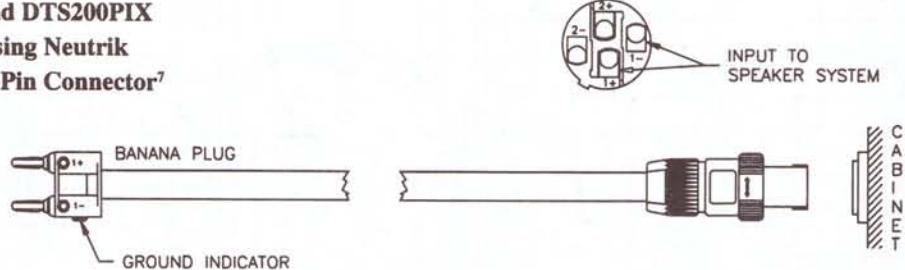
**Figure 7—DTS200PI  $R_\theta$  (Q) and Directivity Index,  $D_I$**



**Figure 8—DTS200PI Dimensions and Mounting (grille removed for clarity)<sup>6</sup>**



**Figure 9—DTS200PI and DTS200PIX Cable Configurations using Neutrik Speakon® NL4FC Four-Pin Connector<sup>7</sup>**



**DTS200PIX CONNECTION**

# Altec Lansing DTS200PI Duplex™ Weather-Resistant Loudspeaker Systems

## Specifications

### System Type:

Weather-resistant, vented-bass, full-range loudspeaker system

### Pressure Sensitivity, (70-20,000 Hz):

100-dB SPL<sup>1</sup>

### Frequency Response (see Figure 2):

80-20,000 Hz<sup>2</sup>

### Beamwidth (see Figure 6),

Horizontal, 800-16,000 Hz:

90° (+25°, -40°)

Vertical, 800-16,000 Hz:

90° (+15°, -35°)

### Directivity Factor (see Figure 7),

R<sub>d</sub> (Q), 800-16,000 Hz:

9.2 (+10.5, -4.7)

### Directivity Index (see Figure 7),

D<sub>p</sub>, 800-16,000 Hz:

9.6 dB (+2.5, -3.5 dB)

### Power Handling, Long Term:

200 watts<sup>3</sup>

### Maximum Long-Term Output

#### (200 watts input):

123-dB SPL<sup>4</sup>

### Impedance (at 15 kHz) (see Figure 3):

6.7 ohms minimum

8.0 ohms nominal

### Components:

305-mm (12.0-in.) high-efficiency,  
Duplex® loudspeaker

### Input Terminals:

Parallel 4-pin Neutrik Speakon®  
connectors

### Replacement LF:

89917 XX

### Replacement HF:

81514 XX

### Replacement Grille:

83892

### Enclosure:

Vented type, injection molded in black,  
high-impact polypropylene lined with  
polyester fill; includes 8-mm mounting  
points for Mb100, Mb200 and Mb300  
suspension kits

### Dimensions (see Figure 8):

587 mm (23.1 in.) high

429 mm (16.9 in.) wide

312 mm (12.3 in.) deep

### Net Weight:

17.3 kg (38.0 lb) – nontransformer

21.3 kg (47.0 lb) – transformer

### Shipping Weight:

18.6 kg (41.0 lb) – nontransformer

22.7 kg (50.0 lb) – transformer

### Finish:

Black textured finish, black grille

### Models Available:

DTS200PI

DTS200PIX (100-watt transformer  
option)

### Accessories:

Mb100, Mb200 and Mb300 suspen-  
sion kits

## Notes on Measurement Conditions

1. Pink-noise signal, one watt calculated using E<sup>2</sup>/Z<sub>min</sub>, 3.16-meter measurement distance referred to one meter.
2. On axis, one watt calculated using E<sup>2</sup>/Z<sub>min</sub>, 3.16-meter measurement distance referred to one meter, low frequencies corrected for anechoic-chamber error.
3. This system rating patterned after the ANSI/EIA RS-426-A 1980 method where the test signal is pink noise with a 6-dB crest factor over the bandwidth of the system, with power calculated using E<sup>2</sup>/R<sub>E</sub> x 1.15, for eight hours (where E is the RMS test voltage and R<sub>E</sub> is the dc resistance of the woofer voice coil).

4. This measurement made under the same conditions as pressure sensitivity, but at rated power, and takes into account any power-compression effects due to nonlinearities in the system.
5. Distortion components invalid above 10 kHz. The distortion at any given frequency may be found by graphically taking the difference between the fundamental and harmonic, and adding the number of decibels which the harmonic has been raised on the graph and apply the formula:

$$\text{percent distortion} = 100 \times 10^{(\text{difference in dB}/20)}$$

6. When mounting the DTS200PI or DTS200PIX in a location where a weather-resistant system is required, a minimum of five degree down angle is recommended (see Figure 8). This will aid in the prevention of any moisture protruding through the foam-backed grille.

7. It is recommended that after making the proper connection with the Speakon® connector to the input on the enclosure, a bead of sealant should be applied around the connection to assure a watertight seal.



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